WHAT IS CLAIMED IS:

1. A method for sealing a percutaneous tissue track extending to a blood vessel comprising:

establishing a semipermeable barrier at a distal end of the tissue track adjacent to a blood vessel access opening, the semipermeable barrier permitting passage of at least one blood component therethrough and preventing passage of a chosen hemostatic material therethrough; and

flowing the chosen hemostatic material through a laterally collapsible tube into the tissue track, wherein the at least one blood component passing through the semipermeable barrier interacts with the chosen hemostatic material to seal effectively the tissue track while the semipermeable barrier prevents passage of the hemostatic material into the blood vessel lumen.

2. The method according to claim 1 wherein the blood-permeable barrier establishing step is carried out by deploying the blood-permeable barrier adjacent to an internal surface of the lumen of the blood vessel.

3. The method according to claim 1 wherein the establishing step comprises the step of expanding the blood-permeable barrier from a laterally-collapsed condition to a laterally-extended condition.

4. The method according to claim 1 wherein the establishing step comprises:

advancing the blood-permeable barrier distally through the tissue track in a collapsed condition; and

deploying the blood-permeable barrier within the lumen of the blood vessel and against a wall of the blood vessel.

5. The method according to claim 4 further comprising the steps of:

collapsing the blood-permeable barrier after the tissue track has been effectively sealed; and

removing the collapsed blood-permeable barrier.

6. The method according to claim 1 wherein the introducing step comprises injecting the chosen hemostatic material through a cannula.

7. The method according to claim 6 wherein the injecting step is carried out using a cannula having a size of 15 gauge or smaller.

8. The method according to claim 1 wherein the introducing step is carried out with a flowable gel hemostatic material.

9. The method according to claim 1 wherein the introducing step is carried out with a flowable gel hemostatic material comprising a matrix material and at least one clotting agent which interacts with the at least one blood component to enhance clotting.

10. The method according to claim 9 wherein the introducing step is carried out with the matrix material comprising at least one protein.

11. The method according to claim 9 wherein the introducing step is carried out with the clotting agent comprising at least one of the following proteins: thrombin, fibrin, and fibrinogen.

12. The method according to claim 1 wherein the introducing step is carried out with the chosen hemostatic material comprising a first material which swells upon contact with the at least one blood component and a second material which induces clotting of the at least one blood component.

13. The method according to claim 1 wherein the introducing step comprises flowing the hemostatic material along a path defined between a barrier carrier tube, to which the semipermeable barrier is mounted, and an elongate inner member, mounted within the barrier carrier tube.

14. The method according to claim 1 wherein the establishing step is carried out using a semipermeable membrane which permits blood to flow therethrough.

15. The method according to claim 1 wherein the establishing step is carried out using a plurality of laterally expandable arms defining fluid flow, permitting gaps therebetween when laterally expanded.

16. A method for closing a percutaneous tissue track leading to an access opening in a blood vessel comprising the following steps:

selecting a barrier assembly comprising a barrier carrier and a semipermeable barrier at the distal end of the barrier carrier, the barrier configured to permit at least one blood component to pass therethrough when in a laterally expanded, deployed configuration;

inserting the barrier through a tissue track and through an access opening in a blood vessel, the barrier being in a laterally retracted, undeployed configuration;

placing the barrier in the laterally expanded, deployed configuration against the access opening;

filling at least a portion of the tissue track adjacent to the access opening with a hemostatic flowable material, said flowable material being of a type which does not pass through the barrier;

maintaining the barrier in position for a chosen time period thereby preventing the flowable material from passing through the barrier into the blood vessel while permitting the at least one blood component to flow through the barrier to interact with the hemostatic flowable material to seal effectively the tissue track;

placing the barrier in the laterally retracted, undeployed condition after said chosen period of time with the barrier carrier comprising a first barrier carrier tube and wherein the barrier is defined at least in part by a plurality of laterally-expandable first arms created by longitudinally-extending first weakened regions in the first barrier carrier tube; and

removing the barrier from the blood vessel and the tissue track so the flowable material effectively seals the percutaneous tissue track.

17. A percutaneous tissue track closure assembly comprising:

a barrier assembly comprising:

an elongate barrier carrier having a distal end;

a barrier at the distal end of the barrier carrier, the barrier being placeable in a laterally retracted, undeployed configuration and a laterally expanded, deployed configuration; and

a user-operated barrier actuator coupled to the barrier to move the barrier between the undeployed and deployed conditions;

a flowable material assembly comprising:

a source of a hemostatic flowable material;

a delivery tube comprising a laterally collapsible tube having a tube entrance and a tube exit at a chosen position along the barrier carrier, the delivery tube coupleable to the flowable material source; and

a flowable material driver selectively driving flowable material from the flowable material source through the tube entrance, along the delivery tube and out of the delivery tube through the tube exit.

18. The assembly according to claim 17 wherein the barrier is a semipermeable barrier which permits blood or at least one blood component to pass therethrough but prevents the flowable material from passing therethrough.

19. The assembly according to claim 17 wherein said semipermeable barrier comprises a porous mesh material.

20. The assembly according to claim 19 wherein said semipermeable barrier comprises a semipermeable membrane.

21. The assembly according to claim 20 wherein said semipermeable barrier comprises a plurality of laterally-expandable arms defining fluid-flow-permitting gaps therebetween when in the deployed configuration.

22. The assembly according to claim 20 wherein said barrier carrier comprises a barrier carrier tube having longitudinally-extending weakened regions defining laterally-expandable arms, said arms defining fluid-flow-permitting gaps therebetween when in the deployed configuration.